Full diary three-tier coding, the Canadian experience

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Time Use survey Manager
Session 2: Operationalization of ICATUS 2016: the use of a full diary
2nd EGM on Innovative and Effective ways to collect Time-Use Statistics

May 20th 2019
Presentation Outline

• Survey methodology
• Coding structure
• Cati Application
• Three-tier approach, coding and results
• Light diary
• CATI and Electronic Application, coding and results
• Feasibility of three-tier EQ collection
• Time Use considerations
Overview of Time Use Survey

• Methodology
  • Collection is done during 12 full consecutive months
  • A random sample is drawn from the 10 Canadian provinces.
  • From contacted households, one person 15 years old or more is randomly selected to complete the survey for a specific reference day
  • The retrospective interview must be completed no later than 48 hours from the reference day to enhance recall.
Overview of Time Use survey

• Methodology

  • In contrary to other surveys, a conversational style is used with respondents. The interviewers do not have to stick with asking the diary questions as worded, but instead help the respondent to remember what he did during the 24 hours of his reference day.
Indicators across cycles

- 12 major indicators
  - Personal care
  - Eating and drinking
  - Travel and going from place to place
  - Paid work activities
  - Studying or learning
  - Household chores and maintenance
  - Parental role, caring and help to others
  - Shopping for goods and services
  - Socializing and communicating
  - Civic, religious and organisational activities
  - Sports, exercise and outdoor activities
  - Leisure, hobbies and down time
These next questions ask about your daily activities. We need to know in as much detail as you can recall, what you did during . . . . . . (refer to reference day) starting at 4:00 o’clock in the morning. This section will provide information on transportation activity, amount of time spent on housework, leisure, paid work, etc. You may have been doing more than one thing at a time but we are interested in the main activity for each time period. We are not interested in activities which lasted only a minute or two. We also ask where you did each activity and if anyone was interacting with you during the activity.

Would you like an example?

EXAMPLE: Yesterday morning I was asleep until 7:15. From 7:15 until 7:30 I got dressed. Then from 7:30 until 7:45 I made breakfast and from 7:45 to 7:55 I ate breakfast with my children. After we ate I cleaned up the dishes, which took 20 minutes.
Pencil in information

Do not ask question “e” about sleep, sex or other personal care activities.

1. a. First of all, starting at 4:00 a.m. what were you doing?
   0 4 : 0 0
   ______________________
   ______________________
   ______________________
   ______________________

b. When did this start?
   ______________________
   ______________________
   ______________________
   ______________________

c. When did this end?
   ______________________
   ______________________
   ______________________
   ______________________

d. Where were you? / Were you still . . .
   Place or In Transit
   RY's Home Work Place Other Place
   Car Walk Bus & Subway Other
   1 2 3 4 5 6 7

e. Who was with you? / Were you still . . .
   Alone Spouse/Partner
   Child(ren) of Household Other Family Member(s)
   Friend(s) Other Person(s)
   1 2 3 4 5 6

2. a. And then, what did you do next?

b. When did this start?
   ______________________
   ______________________
   ______________________
   ______________________

c. When did this end?
   ______________________
   ______________________
   ______________________
   ______________________

d. Where were you? / Were you still . . .
   Place or In Transit
   RY's Home Work Place Other Place
   Car Walk Bus & Subway Other
   1 2 3 4 5 6 7

e. Who was with you? / Were you still . . .
   Alone Spouse/Partner
   Child(ren) of Household Other Family Member(s)
   Friend(s) Other Person(s)
   1 2 3 4 5 6
Example of CATI three-tier hierarchy tree

<table>
<thead>
<tr>
<th>Code</th>
<th>Activity Code</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Personal care</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Meals</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Education activities</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Paid work activities</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Care to Household Children and Adults</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>Leisure activities (active and passive)</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>Computer use</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>Socializing</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>Unpaid work activities for respondent's household</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>Civic, religious, and unpaid work activities done for non-household member(s) and organizations</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>Shopping activities</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>Travel related activities</td>
</tr>
</tbody>
</table>
Example of CATI three-tier hierarchy tree
### Example of three-tier collection

<table>
<thead>
<tr>
<th>6 - Active and passive leisure activities</th>
<th>1. Passive leisure activities (reading, music, T.V., videos)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2. Walking, participating in sports, physical exercise or outdoor activity</td>
</tr>
<tr>
<td></td>
<td>3. Hobbies, crafts, games or other leisure activity</td>
</tr>
<tr>
<td></td>
<td>4. Attending events or visiting sites (sports, concerts, theatre, museums, etc.)</td>
</tr>
</tbody>
</table>

#### 6.3 - Hobbies, crafts, games and other leisure activities

- **6.3.1** Hobbies done mainly for pleasure (painting, sketching, photography)
- **6.3.2** Hobbies crafts done for sale or exchange,
- **6.3.3** Home crafts done mainly for pleasure (sewing and needlework)
- **6.3.4** Home crafts done for sale or exchange
- **6.3.5** Games, cards, puzzles,
- **6.3.6** Playing video games,
- **6.3.7** Singing or playing music, drama, dance,
- **6.3.8** Playing computer games,
- **6.3.9** Computer – surfing the net (as a leisure activity),
- **6.3.10** Computer – E-mail use,
- **6.3.11** Computer – Chat groups,
- **6.3.12** Computer – other internet communication,
- **6.3.13** Computer general use (as a leisure activity)
- **6.3.14** Pleasure drives (as a driver),
- **6.3.15** Pleasure drives (as a passenger),
- **6.3.16** Other pleasure drives (e.g. on a bus tour),
- **6.3.17** Other leisure activity – Specify,
- **6.3.18** Travel to/from hobbies or for the sale of crafts
- **6.3.19** Travel to/from other leisure activities,
## Results for 2010

<table>
<thead>
<tr>
<th>Activity group</th>
<th>Population</th>
<th></th>
<th></th>
<th>Participants</th>
<th></th>
<th></th>
<th>Participation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
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<tr>
<td></td>
<td></td>
<td>hours and minutes</td>
<td></td>
<td></td>
<td>hours and minutes</td>
<td></td>
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</tr>
<tr>
<td>Active leisure</td>
<td>1:13</td>
<td>1:27</td>
<td>0:59</td>
<td>2:22</td>
<td>2:42</td>
<td>2:01</td>
<td>51</td>
</tr>
<tr>
<td>Active sports</td>
<td>0:30</td>
<td>0:37</td>
<td>0:23</td>
<td>1:54</td>
<td>2:12</td>
<td>1:34</td>
<td>26</td>
</tr>
<tr>
<td>Computer use</td>
<td>0:20</td>
<td>0:23</td>
<td>0:17</td>
<td>1:23</td>
<td>1:32</td>
<td>1:14</td>
<td>24</td>
</tr>
<tr>
<td>Video games</td>
<td>0:09</td>
<td>0:14</td>
<td>0:04</td>
<td>2:20</td>
<td>2:40</td>
<td>1:38</td>
<td>6</td>
</tr>
<tr>
<td>Other active leisure</td>
<td>0:14</td>
<td>0:13</td>
<td>0:15</td>
<td>2:05</td>
<td>2:06</td>
<td>2:04</td>
<td>11</td>
</tr>
<tr>
<td>1</td>
<td>Sleeping, napping, resting, relaxing, sick in bed</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>2</td>
<td>Personal care &gt; Personal hygiene; praying, spiritual activities, meditating; sexual activities</td>
<td></td>
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<tr>
<td>3</td>
<td>Health professional visit, consultation</td>
<td></td>
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<tr>
<td>4</td>
<td>Self-administered medical care &gt; Taking blood pressure, sugar level, medication, treatment</td>
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<tr>
<td>5</td>
<td>Meal, snack or drink preparation</td>
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<tr>
<td>6</td>
<td>Eating or drinking &gt; Meals, snacks, drinks</td>
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<tr>
<td>7</td>
<td>Transport to or from activity</td>
<td></td>
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<tr>
<td>8</td>
<td>Paid work</td>
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<td>9</td>
<td>Looking for work</td>
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<td>10</td>
<td>Other income-generating activities</td>
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<tr>
<td>11</td>
<td>Paid training</td>
<td></td>
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<tr>
<td>12</td>
<td>Break or lunch</td>
<td></td>
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<tr>
<td>13</td>
<td>Schooling full time/part time - on site</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>14</td>
<td>Schooling full time/part time - online</td>
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<tr>
<td>15</td>
<td>Homework or studying</td>
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<tr>
<td>16</td>
<td>Self development or leisure and special interest classes</td>
<td></td>
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<tr>
<td>17</td>
<td>Preserving foods &gt; Baking, freezing, sealing, packing foods</td>
<td></td>
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<tr>
<td>18</td>
<td>Indoor house cleaning, dish washing, tidying</td>
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<tr>
<td>19</td>
<td>Taking out garbage, recycling, compost, unpacking goods</td>
<td></td>
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<tr>
<td>20</td>
<td>Laundry, ironing, folding, sewing, shoe care</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>21</td>
<td>Repair, painting or renovation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>Organizing, planning, paying bills</td>
<td></td>
<td></td>
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<tr>
<td>23</td>
<td>Unpacking groceries, packing and unpacking luggage for travel and/or boxes for a move</td>
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<tr>
<td>24</td>
<td>Outdoor maintenance &gt; Car repair, ground maintenance, snow removal, cutting grass</td>
<td></td>
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<tr>
<td>25</td>
<td>Planting (picking), maintaining, cleaning garden, caring for house plants</td>
<td></td>
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<tr>
<td>26</td>
<td>Pet care &gt; Feeding, walking, grooming, playing</td>
<td></td>
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</tr>
<tr>
<td>27</td>
<td>(Caring for a child from your household less than 15)) Personal care, getting ready for school, supervising homework, reading, playing, reprimanding, educational, emotional help</td>
<td></td>
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<tr>
<td>28</td>
<td>(Caring for a child from your household less than 15)) Accompanying to or from school, bus stop, sports, activities, parent school meetings or appointments</td>
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</tr>
<tr>
<td>29</td>
<td>(Caring for a teenager from your household 15 to 17)) Helping with personal care, getting ready for school, supervising homework, reading, playing, reprimanding, educational, emotional help</td>
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<tr>
<td>30</td>
<td>(Caring for an adult from another household) Accompanying to or from appointments, shopping</td>
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<tr>
<td>31</td>
<td>Helping relatives, friends, neighbours, acquaintances &gt; Exclude: caregiving</td>
<td></td>
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</tr>
<tr>
<td>32</td>
<td>Shopping for or buying goods &gt; Gasoline, groceries, clothing, car</td>
<td></td>
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</tr>
<tr>
<td>33</td>
<td>Shopping for services &gt; Legal services, financial services, vehicle maintenance</td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Researching goods or services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>Selling of goods or services</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Socializing or communicating - in person</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>37</td>
<td>Socializing or communicating - using any type of technology &gt; Phone, email, social media, Skype</td>
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</tr>
<tr>
<td>38</td>
<td>Organizational activities</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>39</td>
<td>Voluntary work</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>40</td>
<td>Religious activities</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>41</td>
<td>Civic participation &gt; Voting, jury duty</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>42</td>
<td>Exercising</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>43</td>
<td>Organized recreational sports</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td>44</td>
<td>Competitive sports (indoors or outdoors)</td>
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<td></td>
</tr>
<tr>
<td>45</td>
<td>Outdoor sports (non-competitive) &gt; Skiing, skating, swimming, tennis, football, baseball</td>
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<tr>
<td>46</td>
<td>Attending cinema, exhibitions, library, concerts, theatre, entertainment events</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>47</td>
<td>Attending sporting events</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>48</td>
<td>Visiting museums, art galleries, heritage sites, zoos, observatories</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>49</td>
<td>Art and hobbies &gt; Drawing, painting, crafting, playing an instrument, dancing, collecting, knitting, photography, board and card games, gambling</td>
<td></td>
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<tr>
<td>50</td>
<td>Leisure Activity &gt; Walking, pleasure driving, birdwatching</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>51</td>
<td>Reading &gt; Online or paper version books, periodicals, newspaper, letters</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>52</td>
<td>Writing &gt; Letters, cards, books, poems</td>
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<td></td>
</tr>
<tr>
<td>53</td>
<td>Watching television or videos</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>54</td>
<td>Listening to music or radio</td>
<td></td>
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</tr>
<tr>
<td>55</td>
<td>Use of technology &gt; General computer use, video games, Internet, art music production</td>
<td></td>
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</tr>
</tbody>
</table>
What were you doing at 4:00 a.m.?

<<< Select >>>

**Sleeping**
- Sleeping, napping, resting, relaxing, sick in bed

**Own personal care**
- Personal - hygiene, washing, dressing, hair care, brushing teeth
- Praying, spiritual activities, meditating
- Sexual activities
- Health professional visit, consultation
- Taking blood pressure, sugar level, medication, treatment

**Eating or drinking**
- Preparation - meals, snacks, lunches
- Eating or drinking - meals, snacks, drinks

**Paid work activities**
- Working at main job or other jobs
- Business travel
- Looking for work
- Other income-generating activities
- Paid training
- Personal appointment
- Break or lunch

**Studying or learning**
- Main schooling full time/part time - on site
- Main schooling full time/part time - online
- Homework
- Self development
- Break or lunch
- Leisure and special interest classes

**Travel and going from place to place**
- Transport to or from activity

**Household chores or maintenance**
Starting at 4:00 AM, how long did this activity last?

- [ ] Hour
- [ ] Minute

Please indicate if you were doing any of these activities at the same time.

4:00 AM:

- Simultaneous Activity 1
  - [ ] Select

- Simultaneous Activity 2
  - [ ] Select

Where were you?

4:00 AM:

- [ ] Select

Who was with you?

4:00 AM:

- On my own
- [ ] Spouse, partner
- [ ] Household child, children (less than 15 years old)
- [ ] Household child, children (15 years or older)
- [ ] Parents or parents-in-law
- [ ] Other household adult(s)
- [ ] Other family member(s) from other households
- [ ] Friend(s)
- [ ] Colleague(s), classmate(s)
- [ ] Other people

During this time period, did you use any information technology device such as a tablet, smartphone, computer or laptop?

4:00 AM:

- Yes
- No
## 2015 results with light diary

### Canada [map](#)

**Total, 15 years and over**

<table>
<thead>
<tr>
<th>Activity group</th>
<th>Both sexes</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daily average time, population</td>
<td>Daily average time, participants</td>
<td>Participation rate</td>
</tr>
<tr>
<td>Active leisure</td>
<td>1.0</td>
<td>2.5</td>
<td>41.5</td>
</tr>
<tr>
<td>Use of technology</td>
<td>0.7</td>
<td>2.2</td>
<td>30.4</td>
</tr>
<tr>
<td>Arts and hobbies, leisure activities or writing</td>
<td>0.4</td>
<td>2.2</td>
<td>16.8</td>
</tr>
</tbody>
</table>
Feasibility of having three-tier coding in EQ

1. By mail
   - Press Start to begin

2. By telephone
   - Press Start to begin

3. By television, radio or telethon
   - Press Start to begin

4. Online
   - Press Start to begin

5. On your own
   - Press Start to begin

6. Charity event
   - Press Start to begin

7. In memory of someone
   - Press Start to begin

8. Someone at work
   - Press Start to begin

9. Door-to-door canvassing
   - Press Start to begin

10. Shopping centre or on the street
    - Press Start to begin

11. Place of worship
    - In progress

12. Sponsoring someone
    - Complete

13. Other method
    - Press Start to begin

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Feasibility of having three-tier coding in EQ

Name of organization
To search for your organization, type the first few letters or keyword to narrow down the choices.
If you cannot find or cannot remember the name of the organization, select the appropriate option below.

<<< Select >>>
GSA_Q0108_1

OR

You cannot find the name of the organization
GSA_Q0108_1

Specify the name of the organization
Name of organization
GSA_Q0105_1

What does this organization do?
Activity of the organization
GSA_Q020_1A

Hidden related field

You cannot remember the name of the organization

What does this organization do?
Activity of the organization
GSA_Q020_1B

Hidden related field
Harder to code activities

- Bring flower to the cemetery – usually coded as religious activity
- Walking (leisure, transportation, exercising) especially difficult when it is a mix of reasons – if going somewhere we will code as transportation
- Sport activities require a lot of prompting to code it to the proper one for example swimming
Contextual questions

• Increase respondent burden
• Select activities that would benefit from knowing “for whom the activity was done”
  • (sleep, personal care, work and study, eat … should be excluded)
• Adds complexity to the application flow
• Telephone mode VS self completed
Labour force questions

• The Time Use diary only collects general work information done during the 24 hour recall for those who worked

• Stylized portion of the questionnaire contains a whole set of labour force questions which provide the type of work, the usual work hours, the employer, the duties, etc.

• Could link NAICS and NOCS codes back to Time Use
Questions?

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